PRC Environmental Management, Inc. 233 North Michigan Avenue Suite 1621 Chicago, IL 60601 312-856-8700 Fax 312-938-0118



### PRELIMINARY ASSESSMENT/ VISUAL SITE INSPECTION



ACE IRON AND METALS, INC. (Formerly Process Alliance Partnership) JOLIET, ILLINOIS ILD 006 665 752

FINAL REPORT

## Prepared for

# U.S. ENVIRONMENTAL PROTECTION AGENCY Office of Waste Programs Enforcement Washington, DC 20460

Work Assignment No. : C05087

EPA Region : 5

 Site No.
 :
 1LD 006 665 752

 Date Prepared
 :
 March 10,1993

 Contract No.
 :
 68-W9-0006

 PRC No.
 :
 009-C05087IL8K

Prepared by : PRC Environmental Management, Inc.

Lorraine Morris

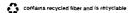
Contractor Project Manager : Shin Ahn

Telephone No. : (312) 856-8700 EPA Work Assignment Manager : Kevin Pierard Telephone No. : (312) 886-4448

EPA Region 5 Records Ctr.



283264

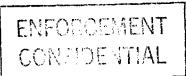


### TABLE OF CONTENTS

Section	<u>l</u>	•	<u>Page</u>		
EXEC	UTIVE	SUMMARY	ES-1		
1.0	INTRODUCTION				
2.0	FACIL	ITY DESCRIPTION	4		
	2.1 2.2 2.3 2.4 2.5 2.6	FACILITY LOCATION FACILITY OPERATIONS WASTE GENERATION AND MANAGEMENT HISTORY OF DOCUMENTED RELEASES REGULATORY HISTORY ENVIRONMENTAL SETTING  2.6.1 Climate 2.6.2 Flood Plain and Surface Water 2.6.3 Geology and Soils 2.6.4 Ground Water	4 6 . 11 . 11 . 13 . 14		
	2.7	RECEPTORS			
3.0	SOLID	WASTE MANAGEMENT UNITS	. 17		
4.0	AREA	S OF CONCERN	. 20		
5.0	CONC	LUSIONS AND RECOMMENDATIONS	. 21		
REFE	RENCE	s	. 24		
Attach	ment				
Α	EPA P	RELIMINARY ASSESSMENT FORM 2070-12			
В	VISUA	AL SITE INSPECTION SUMMARY AND PHOTOGRAPHS			
C	VISUAL SITE INSPECTION FIELD NOTES				
D	SOIL SAMPLE COVER LETTER				

### LIST OF TABLES

<u>Table</u>	<u>Page</u>
1	SOLID WASTE MANAGEMENT UNITS
2	SOLID WASTES
3	SWMU AND AOC SUMMARY
	LIST OF FIGURES
<u>Figure</u>	<u>Page</u>
1	FACILITY LOCATION 5
2	EACH ITY LAVOLIT



#### **EXECUTIVE SUMMARY**

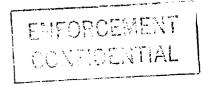
PRC Environmental Management, Inc. (PRC), performed a preliminary assessment and visual site inspection (PA/VSI) to identify and assess the existence and likelihood of releases from solid waste management units (SWMU) and other areas of concern (AOC) at the Ace Iron and Metals, Inc. (Ace), facility in Joliet, Will County, Illinois. The ACE facility was formerly known as the Process Alliance Partnership (PAP) facility. This summary highlights the results of the PA/VSI and the potential for releases of hazardous wastes or hazardous constituents from SWMUs and AOCs identified. In addition, a completed U.S. Environmental Protection Agency (EPA) Preliminary Assessment Form (EPA Form 2070-12) is included in Attachment A to assist in prioritizing RCRA facilities for corrective action.

Ace currently uses the facility as a garage and for scrap metal storage. From 1979 to 1981, PAP operated this facility as a caustic scrubber treatment facility. The PAP facility managed the following waste streams: spent caustic scrubber solution from Northern Petrochemical Company; spent pickle liquor (K062), etchant (D002) from off-site steel and electronics industries; oily substance (D001); and nonhazardous filter cake, filtrate, and treated effluent.

Ace, the facility's current owner and operator, has operated at its current location since 1983. The facility occupies less than 1 acre in an industrial area and employs about five people. The facility's current regulatory status is that of a nonhandler of hazardous waste. Ace purchased this property from the First National Bank of Joliet (FNBJ) as part of a trust in 1983. According to Mr. Egly, Ace's owner, Ace requested that FNBJ remove all equipment associated with PAP and conduct soil sampling before Ace purchased the property. A 1983 letter from Tenco Laboratories states that the property is not hazardous. However, sample analysis results were not made available to PRC. The PAP equipment was removed, but no closure documents are available. No known RCRA corrective action activities have occurred at this facility.

PAP submitted a RCRA Part A permit application on November 14, 1980. The permit lists a tank storage area (S02) with a capacity of 174,000 gallons; treatment in tanks (T01) with a capacity of 200,000 gallons per day; and filter and decant processes (T04) with capacities of 140,000 and 180,000 gallons per day respectively.

PAP was regulated as a treatment, storage, or disposal (TSD) facility. However, PAP was apparently unsuccessful in receiving necessary operating permits to conduct hazardous waste



treatment activities and ceased facility operations in 1981. PAP leased the facility property from Mr. Robert Barker, the facility's former owner. PRC was unable to located Mr. Barker. Former uses of the facility property are unknown. Also, it is unknown when the property was transferred from Mr. Barker to FNBJ.

PAP accepted spent caustic scrubber solution, which may or may not have been hazardous, from Northern Petrochemical Company and neutralized the scrubber solution by combining it with spent pickle liquor (K062) and etchant (D002) from off-site steel and electronics industries. PAP stored the waste outdoors in nine storage tanks before pumping it inside the facility building for treatment. The treatment unit consisted of seven tanks and two filters. Treated effluent and filtrate was discharged to the City of Joliet sewerage system. An oily substance (D001) removed from the Waste Treatment Unit (SWMU 1) during the treatment process was sent off site to an oil reprocessor, and nonhazardous filter cake was sent off site for disposal at a sanitary landfill.

The PA/VSI identified the following two SWMUs and one AOC at the facility:

Solid Waste Management Units

- 1. Waste Treatment Unit
- 2. Waste Storage Areas

Area of Concern

1. Collection Drain

On March 29, 1981, a 150- to 200-gallon spill of spent caustic scrubber solution occurred when the spent caustic scrubber solution was transferred from a tank truck to a storage tank in the Waste Storage Areas (SWMU 2). Apparently, the tank overflowed onto the ground. Spilled solution was removed by a chemical absorbent compound and the compound was disposed of in a dumpster. Available documents do not indicate exactly where the spill occurred or what other cleanup activities were conducted.

The potential for release to ground water, surface water, air, and on-site soils is low for SWMUs 1 and 2 and AOC 1. SWMU 1 was located indoors on a concrete base and had a collection drain. SWMU 2 was bermed. Both units were removed in 1983. However, no closure documents for either unit are available. AOC 1 appears to be a self-contained collection drain that led to a treatment tank. The drain measures about 1.5 by 15 feet. The drain's depth and base construction



materials are unknown. The drain has a metal grate and concrete walls. However, the base was not visible during the VSI, and the current owner did not know if the bottom of the drain was constructed of concrete or soil. An Illinois Environmental Protection Agency (IEPA) document indicates that the drain was used to collect spills and leachate from the filter cakes.

Joliet has a population of about 77,000. The nearest school, Sheridan School, is located about 1 mile northwest of the facility. The building is equipped with an alarm system. The property is fenced north of the building on the west side. The rest of the property is unfenced.

Ground water is used as a municipal water supply. The nearest municipal drinking water well is located about 0.5 mile upgradient and northwest of the facility. No industrial wells are located within 2 miles of the facility. The nearest surface water body, the Des Plaines River, is located adjacent to the facility and is used for recreational boating and shipping.

Sensitive environments within 2 miles of the Ace facility include three types of mapped wetland areas. The first type consists of ponds and marshes with nonwoody emergent vegetation. There are approximately eight of these wetland areas. These wetlands mostly measure between 1 and 2 acres in size. The second type of wetland is excavated intermittent riverine wetlands, which are located along tributaries to the Des Plaines River. The third type includes six flooded dolomite quarries up to 20 acres in size. The nearest wetland is located about 1 mile north of the facility and consists of a 1-acre marsh with nonwoody emergent vegetation.

PRC recommends that Ace submit all documentation regarding the soil sample collected in 1983 from the Waste Storage Areas (SWMU 2). PRC also recommends that Ace verify and submit documentation regarding construction materials used for the base of the Collection Drain (AOC 1). Ace should also find out if the drain is self-contained or connected to the City of Joliet sewerage system.

#### 1.0 INTRODUCTION

PRC Environmental Management, Inc. (PRC), received Work Assignment No. C05087 from the U.S. Environmental Protection Agency (EPA) under Contract No. 68-W9-0006 (TES 9) to conduct preliminary assessments (PA) and visual site inspections (VSI) of hazardous waste treatment and storage facilities in Region 5.

As part of the EPA Region 5 Environmental Priorities Initiative, the RCRA and CERCLA programs are working together to identify and address RCRA facilities that have a high priority for corrective action using applicable RCRA and CERCLA authorities. The PA/VSI is the first step in the process of prioritizing facilities for corrective action. Through the PA/VSI process, enough information is obtained to characterize a facility's actual or potential releases to the environment from solid waste management units (SWMU) and areas of concern (AOC).

A SWMU is defined as any discernible unit at a RCRA facility in which solid wastes have been placed and from which hazardous constituents might migrate, regardless of whether the unit was intended to manage solid or hazardous waste.

The SWMU definition includes the following:

- RCRA-regulated units, such as container storage areas, tanks, surface impoundments, waste piles, land treatment units, landfills, incinerators, and underground injection wells
- Closed and abandoned units
- Recycling units, wastewater treatment units, and other units that EPA has
  usually exempted from standards applicable to hazardous waste
  management units
- Areas contaminated by routine and systematic releases of wastes or hazardous constituents. Such areas might include a wood preservative drippage area, a loading or unloading area, or an area where solvent used to wash large parts has continually dripped onto soils.

An AOC is defined as any area where a release of hazardous waste or constituents to the environment has occurred or is suspected to have occurred on a nonroutine and nonsystematic basis. This includes any area where a strong possibility exists that such a release might occur in the future.

#### The purpose of the PA is as follows:

- Identify SWMUs and AOCs at the facility
- Obtain information on the operational history of the facility
- Obtain information on releases from any units at the facility
- Identify data gaps and other informational needs to be filled during the VSI

The PA generally includes review of all relevant documents and files located at state offices and at the EPA Region 5 office in Chicago.

#### The purpose of the VSI is as follows:

- Identify SWMUs and AOCs not discovered during the PA
- Identify releases not discovered during the PA
- Provide a specific description of the environmental setting
- Provide information on release pathways and the potential for releases to each medium
- Confirm information obtained during the PA regarding operations, SWMUs, AOCs, and releases

The VSI includes interviewing appropriate facility staff; inspecting the entire facility to identify all SWMUs and AOCs; photographing all visible SWMUs; identifying evidence of releases; making a preliminary selection of potential sampling parameters and locations, if needed; and obtaining additional information necessary to complete the PA/VSI report.

This report documents the results of a PA/VSI of the Ace Iron and Metals, Inc. (Ace) facility (EPA Identification No. ILD 006 665 752) in Joliet, Will County, Illinois. The Ace facility was formerly known as the Process Alliance Partnership (PAP) facility. The PA was completed on January 15, 1993. PRC gathered and reviewed information from Illinois Environmental Protection Agency (IEPA) and EPA Region 5 RCRA files. PRC also gathered information from the Federal Emergency Management Agency (FEMA), the National Oceanographic and Atmospheric Agency (NOAA), the State of Illinois, the U.S. Department of the Interior (USDI), the U.S. Geological Survey (USGS), the University of Illinois Agricultural Extension Service

(UIAES), the Joliet Water and Sewer Department, and various other sources. The VSI was conducted on January 19, 1993. It included interviews with facility representatives and a walk-through inspection of the facility. PRC identified two SWMUs and one AOC at the facility.

PRC completed EPA Form 2070-12 using information gathered during the PA/VSI. This form is included in Attachment A. The VSI is summarized and seven inspection photographs are included in Attachment B. Field notes from the VSI are included in Attachment C. Correspondence from Tenco Laboratories regarding 1983 soil sampling is included as Attachment D.

#### 2.0 FACILITY DESCRIPTION

This section describes the facility's location; past and present operations; waste generating processes and waste management practices; a history of documented releases; regulatory history; environmental setting; and receptors.

#### 2.1 FACILITY LOCATION

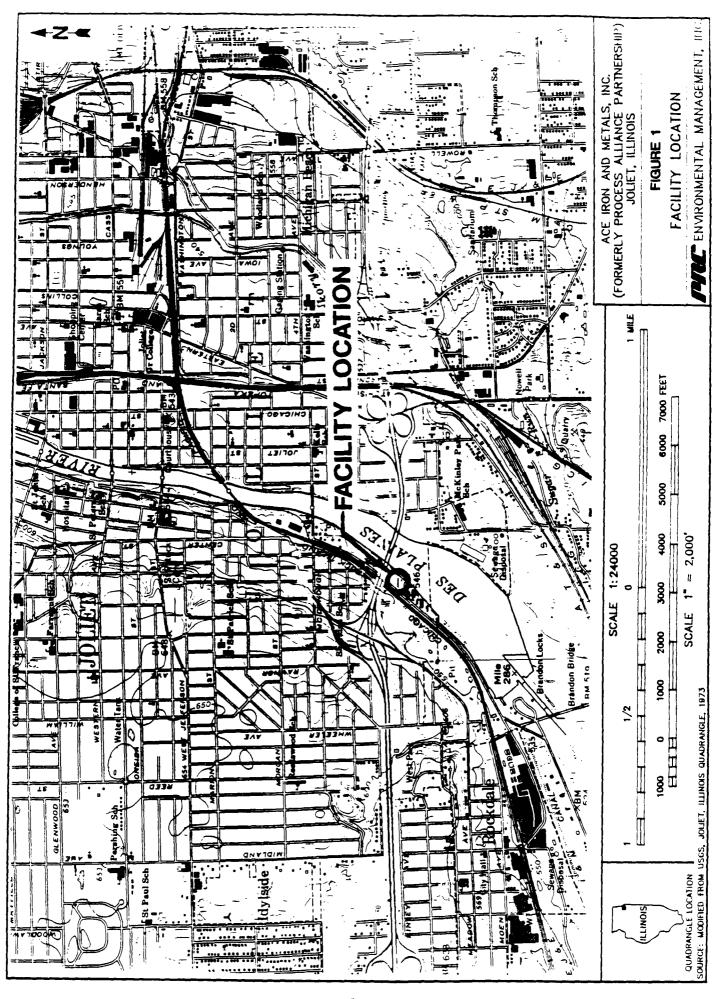
The Ace facility is located at 608 Railroad Street in Joliet, Will County, Illinois. Figure 1 shows the location of the facility in relation to the surrounding topographic features (latitude 41°30'33" N and longitude 88°05'32" W). The facility occupies less than 1 acre in an industrial area.

The facility is bordered on the north by an additional lot owned by Ace used to store scrap metal and concrete; on the west by Railroad Street (Route 6), railroad tracks and vacant land; on the south by a U.S. Army Corps of Engineers (COE) office and equipment storage area; and on the east by the Des Plaines River.

#### 2.2 FACILITY OPERATIONS

Ace, the facility's current owner and operator, uses the facility as a truck garage and to store scrap metal outside on the north and east sides of the building. Ace purchased this property from the First National Bank of Joliet (FNBJ) as part of a trust in 1983. According to Mr. Egly, Ace's owner, Ace requested that FNBJ remove all equipment associated with PAP, the facility's former operator, and conduct soil sampling before Ace purchased the property. A letter from Tenco Laboratories states that the property is not hazardous (see Attachment D). However, sample analysis results were not made available to PRC. PAP leased the property from Mr. Robert Barker, the facility's former owner, from 1978 to 1983. PRC was unable to locate Mr. Barker. Former land use of the facility property is unknown. It is also unknown when the property was transferred from Mr. Barker to FNBJ.

PAP accepted spent caustic scrubber solution, which may or may not have been hazardous, from Northern Petrochemical Company and neutralized the scrubber solution by combining it with spent pickle liquor (K062) and etchant (D002) from off-site steel and electronics industries. PAP stored the waste outdoors in nine storage tanks before pumping it inside the facility building



for treatment. The treatment unit consisted of seven tanks and two filters. Treated effluent and filtrate was discharged to the City of Joliet sewerage system. An oily substance (D001) removed from the Waste Treatment Unit (SWMU 1) during the treatment process was sent off site to an oil reprocessor, and nonhazardous filter cake was sent off site for disposal at a sanitary landfill.

Solid waste generated from facility operations and the SWMUs where they are managed are discussed in detail in Section 2.3.

Ace has operated at the facility since 1983 and employs about 5 people. However, the facility is unoccupied most of the time. Ace's main activities are not conducted at this location.

The facility consists of one building measuring approximately 60 by 120 feet on the western half of the property. The entire property is about 66 feet by 264 feet. It is unknown when the building was constructed. Ace also purchased the lot to the north of the facility, but this lot was not part of the PAP facility.

Former uses of this facility are unknown. The facility has a railroad easement in its eastern portion adjacent to the Des Plaines River. However, the railroad is not currently active and was not active when PAP occupied the property. The railroad tracks were not visible during the VSI.

### 2.3 WASTE GENERATION AND MANAGEMENT

This section describes waste generation and management at the Ace facility. The facility's SWMUs are identified in Table 1. The facility layout, including SWMUs and the AOC, is shown in Figure 2. The facility's waste streams are summarized in Table 2.

The Ace facility does not generate waste. The facility building is used as a truck garage and for storage of scrap metal. According to Mr. Egly, Ace's owner, trucks are not repaired at this facility. All repairs and maintenance activities are conducted off site. However, waste streams were apparently generated when the facility was operated as a waste treatment facility by PAP.

According to IEPA and EPA documents, PAP received spent caustic scrubber solution from the Northern Petrochemical Company. No information indicates if the caustic spent

## TABLE 1 **SOLID WASTE MANAGEMENT UNITS**

SWMU Number	SWMU Name	RCRA Hazardous Waste Management Unit <sup>a</sup>	Status
1	Waste Treatment Unit	Yes	Unit removed in 1983; however, no closure documents available
2	Waste Storage Areas	Yes	Unit removed in 1983; however, no closure documents available
Note:			

A RCRA hazardous waste management unit is one that currently requires or formerly required submittal of a RCRA Part A or Part B permit application.

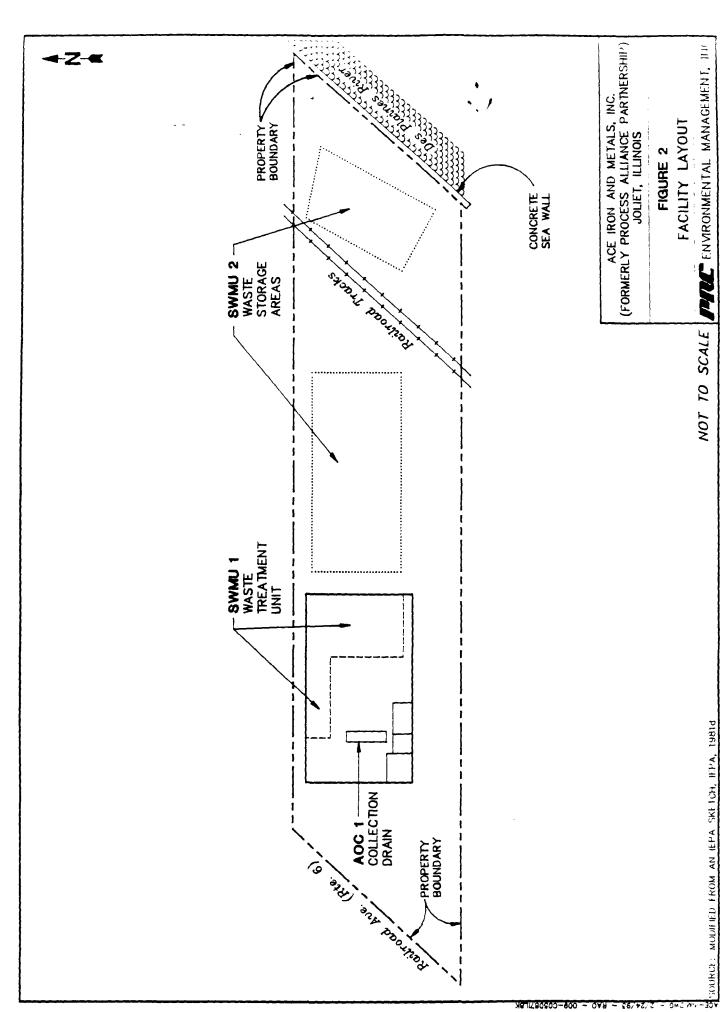


TABLE 2
SOLID WASTES

Waste/EPA Waste Code*	Source	Solid Waste  Management Unit			
Spent caustic scrubber solution/Waste code(s) unknown if applicable	Received from off site	SWMUs 1 and 2			
Spent pickle liquor/K062	Received from off site	SWMUs 1 and 2			
Etchant/D002	Received from off site	SWMUs 1 and 2			
Filtrate/NA	Waste treatment	SWMU 1			
Filter cake/NA	Waste treatment	SWMU I			
Oily substance/D001	Waste treatment	SWMU I			
Treated effluent/NA	Waste treatment	SWMU 1			
Note:					
Not applicable (NA) designates nonhazardous waste.					

scrubber solution was hazardous or nonhazardous. The scrubber solution was stored in the outside storage tanks at the Waste Storage Areas (SWMU 2) before treatment in the Waste Treatment Unit (SWMU 1). The spent caustic scrubber solution was neutralized with spent pickle liquor (K062) or an etchant (D002) from the steel and electronic industries. The spent pickle liquor (K062) and the etchant (D002) were stored in tanks in the Waste Storage Areas (SWMU 2) until treatment in the Waste Treatment Unit (SWMU 1) occurred. The initial neutralization process generated a treated effluent. IEPA documents indicate that the treated effluent was discharged to the sewerage system. However, if the treated effluent contained solids, additional treatment occurred.

Conditioning polymers were added to the treated effluent to flocculate the solids. The solids and liquids were then separated and the liquid was drawn off. The liquid was pumped through two filters to produce nonhazardous filtrate and filter cake. The treated effluent and the filtrate were discharged to the sewerage system, and the filter cake was disposed of at a landfill. It is unknown where the filter cake was stored before off-site disposal. Additionally, it is unclear if the filtrate or the treated effluent was stored before it was discharged to the sewerage system. Permit No. 80-1485 was obtained by PAP to dispose of the filter cake at the Land and Lakes No. 3 Landfill in Chicago (IEPA, 1980).

A separate oily substance (D001) was drawn off the waste being treated. It is unclear from available documents when in the treatment process oily substance was transferred for disposal. The oily substance was disposed of at an unnamed recovery facility. It is unknown where the oily substance was stored before it was transferred off site.

A 1981 IEPA document indicates that PAP received about 25,000 gallons of spent caustic scrubber solution per day and 31,000 gallons of spent pickle liquor (K062) per week. PAP discharged about 196,000 gallons of treated effluent every week to the City of Joliet sewerage system. Every week, PAP also sent about 42 cubic yards of filter cake to an IEPA-approved landfill and 500 to 1,000 gallons of oily substance (D001) to an oil reprocessor (IEPA, 1981a).

An EPA document states that in 1979, PAP stored spent caustic scrubber solution in an uncovered barge on the Des Plaines River (EPA, 1984). Available documents do not indicate when this storage method was discontinued.

#### 2.4 HISTORY OF DOCUMENTED RELEASES

This section discusses the history of documented releases to ground water, surface water, air, and on-site soils at the facility.

On December 28, 1980, about 1,000 gallons of oily substance (D001) removed from the Waste Treatment Unit (SWMU 1) leaked from a tank truck being prepared to ship the substance off site. Apparently, a deteriorated pipe fitting caused the leakage. A vacuum truck was used to clean up the spill (City of Joliet, 1981b). No information is available that indicates exactly where the truck was located when the spill occurred or what other cleanup activities were conducted.

On March 29, 1981, a 150- to 200-gallon spill of spent caustic scrubber solution occurred when the solution was transferred from a tank truck to a storage tank in the Waste Storage Areas (SWMU 2). Apparently, the tank overflowed onto the ground. Spilled solution was removed by a chemical absorbent compound and the compound was disposed of in a dumpster (IEPA, 1981). Available documents do not indicate exactly where the spill occurred or what other cleanup activities were conducted. Available documents do not indicate if sampling was conducted.

### 2.5 REGULATORY HISTORY

A Notification of Hazardous Waste Activity form was not available during the file review. PAP submitted a RCRA Part A permit application on November 14, 1980 (PAP, 1980).

The permit lists a tank storage area (S02) with a capacity of 174,000 gallons, treatment in tanks (T01) with a capacity of 200,000 gallons per day, and filter and decant processes (T04) with capacities of 140,000 and 180,000 gallons per day, respectively. These process codes represented activities in the Waste Treatment Unit (SWMU 1) and the Waste Storage Areas (SWMU 2). Two waste codes were listed: spent pickle liquor (K062), with an estimated annual production quantity of 50,000 tons; and corrosive waste (D002), with an estimated annual production quantity of 100,000 tons (PAP, 1980).

PAP apparently had difficulty receiving necessary permits to operate a waste treatment facility. On October 29, 1980, IEPA conducted an inspection to determine if a developmental permit should be granted to PAP (IEPA, 1980). At that time, IEPA noted several problems that PAP had with the City of Joliet, IEPA, the Division of Air Pollution Control (DAPC), and

housekeeping practices (IEPA, 1980). PAP needed a permanent permit to discharge into the City of Joliet sewerage system and additional building permits to complete its waste treatment unit. Apparently, problems occurred when PAP discharged waste oil into the sewerage system and when facility building codes did not comply with the City of Joliet building ordinances. IEPA and DAPC were involved when odor complaints were received from the nearby COE and residences. An IEPA representative who inspected the facility stated that evidence of spills was observed around the unloading areas, storage tanks, pumps, and inside the building. IEPA also stated a need for diking around the storage tanks, pumps, and unloading areas to insure spill containment (IEPA, 1980).

PAP received an experimental permit from IEPA in January 1981 to determine if the waste treatment process could operate in compliance with all state regulations (IEPA, 1981a). IEPA gave PAP until March 10, 1981, to comply with the developmental permit application needed by PAP to continue operations. The permit application was not available for review during the PA/VSI. The City of Joliet's utilities department expressed concern about the extension of this permit past the expiration date of March 1981 (City of Joliet, 1981a).

Several attempts were apparently made by PAP to comply with the facility's development permit application. Correspondence between PAP and IEPA regarding this matter is in the IEPA file. However, IEPA denied the permit on February 23, 1981, and an inspection by IEPA to determine if PAP had achieved compliance with permit conditions indicated that PAP was unsuccessful (IEPA, 1981b and c). On February 28, 1981, PAP requested an extension on the review period for the development permit (PAP, 1981a). PAP was also denied an air permit from IEPA and DAPC in February 1981 (IEPA, 1981c). In March 1981, IEPA extended the experimental permit until October 1981 (IEPA, 1981d).

In 1981, the COE office indicated that odor problems from the facility continued to be a problem (COE, 1981). Also in May and August, an IEPA inspection indicated that PAP still did not comply with conditions in the developmental permit (IEPA, 1981e and f). In August 1981, IEPA denied developmental and operating permits for PAP (IEPA, 1981g).

In December 1984, a site screening inspection (SSI) was conducted at the PAP facility (EPA, 1984). At that time, the facility was not operating and the SSI report indicates that the facility had not operated since 1981. No other documents were available for review that indicate the exact date PAP ceased operations. According to Mr. Egly, Ace's owner, before he purchased

the property in 1983, the waste treatment equipment in the Waste Treatment Unit (SWMU 1) was still on site. Mr. Egly requested that the equipment be removed and soil sampling be conducted before he purchased the property. Mr. Egly stated that the property was purchased from the FNBJ, and FNBJ arranged for the removal of the equipment and soil sampling. A 1983 letter from Tenco Laboratories states that the property is not hazardous. However, sample analysis results were not made available to PRC (see Attachment D). No closure documents are available for the Waste Treatment Unit (SWMU 1) or the Waste Storage Areas (SWMU 2).

The 1984 SSI report indicates that PAP facility represented a medium risk for release of hazardous constituents to environmental media, and an inspection was required (EPA, 1984). No documents were reviewed that indicate that an inspection was conducted.

The facility's current regulatory status is that of a nonhandler of hazardous waste.

The facility is not currently required to have operating air permits. The Ace facility has no history of odor complaints from area residents. However, when PAP operated at this facility, odor complaints were received by IEPA. The facility is not required to have a National Pollutant Discharge Elimination System (NPDES) permit. No CERCLA activity has occurred at this site. No underground storage tanks (UST) are known to exist.

### 2.6 ENVIRONMENTAL SETTING

This section describes the climate; flood plain and surface water; geology and soils; and ground water in the vicinity of the facility.

#### 2.6.1 Climate

The climate in Will County is continental with cold winters and warm summers. The average daily temperature is 49.2 degrees Fahrenheit (°F). The lowest average daily temperature is 21.4 °F in January. The highest average daily temperature is 73 °F in July (NOAA, 1990).

The total annual precipitation for the county is 33.34 inches. The mean annual lake evaporation for the area is about 30 inches (NOAA, 1990). The 1-year, 24-hour maximum rainfall is about 2.4 inches (NOAA, 1979).

The prevailing wind is from the west-southwest. Average wind speed is highest in April at 12 miles per hour. (NOAA, 1990).

### 2.6.2 Flood Plain and Surface Water

The Ace facility is in an area of minimal flooding. The 100-year flood plain along this reach of the Des Plaines River is confined to a channel by a flood wall (FEMA, 1985).

The nearest surface water body, the Des Plaines River, is located on the east side of the facility and is used for recreational boating and shipping purposes. All storm water runoff is directed to storm sewers that discharge to the City of Joliet East Side Sewage Treatment Plant (ESSTP) (Joliet Water and Sewer Department, 1993). The Des Plaines River flows southwest and discharges to the Illinois River near Morris, Illinois (State of Illinois, 1991).

### 2.6.3 Geology and Soils

Soils in the vicinity of the Ace facility are mapped as disturbed or paved because of cutting and filling associated with construction activities. Soils around the facility are mapped in bands that are parallel to the Des Plaines River. The Ace facility lies along the lines of two bands: Romeo silt loam and Lorenzo silt loam. Romeo silt loam is probably the original soil of the majority of the facility property and consists of very shallow (2 to 10 inches) dark alluvial sediments directly overlying limestone or dolomite bedrock. Romeo silt loam is a common soil along the Des Plaines river in this area. Lorenzo silt loam occurs at slightly higher elevations and is developed in thin silty sediment overlying thin loamy stratified gravel. Lorenzo silt loam is moderately permeable at the surface, very permeable in the subsoil layer and excessively well drained on riverine terraces (UIAES, 1962).

Surficial deposits in the area around the Ace facility are very thin alluvial deposits less than 10 feet thick overlying bedrock. No glacial deposits are mapped in this portion of the Des Plaines River valley (Lineback, 1979). The Manhattan Moraine deposited during Wisconsinan Period glaciation is located approximately 3 miles east of the facility.

Bedrock underlying the alluvial deposits and fill at the Ace facility consists of Silurian Period dolomite. The dolomite is approximately 150 feet thick in this area and includes Alexandrian Series Waukesha, Joliet, Kankakee, and Edgewood Dolomites. The Alexandrian

Series Dolomites are well bedded and generally white or gray, with cherty zones and occasional green or red shale beds. Underlying these dolomites is the Ordovician Period Maquoketa Shale, which is red and oolitic at the top and greenish gray and dolomitic at the bottom. The Maquoketa Shale is approximately 200 feet thick. Several thousand feet of Ordovician Period and Cambrian Period dolomites and sandstones underlie the Maquoketa Shale.

The Ace facility lies in a area of flat-lying or gently dipping bedrock approximately 10 miles northeast of the east limb of the Sandwich Fault Zone. The Sandwich Fault Zone in this area affects Silurian and Ordovician Period rocks, has a maximum displacement of 100 feet, and runs roughly northwest to southeast. The relative displacement reverses from the upthrown side north of the fault at the east end to the upthrown side south of the fault on the west end (Willman, 1971).

#### 2.6.4 Ground Water

Ground water is encountered at a depth of 4.5 feet below ground surface (bgs). Although saturated, the alluvial deposits in the area are too thin to be considered an aquifer. Two aquifers are present in the facility area: a shallow bedrock aquifer and a deep bedrock aquifer. The Silurian Period dolomite comprises the shallow bedrock aquifer and is unconfined. The dolomite aquifer has variable characteristics from variations in fracturing and openings. The shallow bedrock aquifer underlies the Maquoketa Shale and comprises the Ordovician and Cambrian Period dolomites and sandstones. The Maquoketa Shale serves at a confining layer over the deep bedrock aquifer (Hughes, Kraatz, and Landon, 1966). The City of Joliet municipal wells draw from only the deep bedrock aquifer (Joliet Water and Sewer Department, 1993).

No monitoring wells are present at the facility. Ground-water flow direction in the shallow bedrock aquifer is towards the Des Plaines River. The groundwater flow rate is unknown for this area. Regionally, the deep bedrock aquifer flows east, but in the Joliet Area, the aquifer flows towards municipal and industrial wells because of large, coalescing cones of depression (Schicht and others, 1976).

#### 2.7 RECEPTORS

The facility occupies less than 1 acre in an industrial and residential area in Joliet, Illinois. Joliet has a population of about 77,000.

The facility is bordered on the north by an additional lot owned by Ace for scrap metal storage; on the west by Railroad Street (Route 6), railroad tracks, and vacant land; on the south by a COE office and equipment storage area; and the east by the Des Plaines River. The nearest residential area is about 0.5 mile west of the facility. The nearest school, Sheridan School, is about 1 mile northwest of the facility. The building is equipped with an alarm system. The property is fenced north of the building on the west side. The rest of the property is unfenced.

The nearest surface water body, the Des Plaines River, is located adjacent to the facility and is used for recreational boating and shipping. No discharge water intakes are located on the Des Plaines River.

Ground water is used as a municipal water supply. The nearest municipal drinking water well is located about 0.5 mile upgradient and northwest of the facility. No industrial wells are located within 2 miles of the facility. The City of Joliet obtains drinking water from 17 wells drawing from deep bedrock aquifers. Most of these wells are at depths of about 1,600 feet bgs (Joliet Water and Sewer Department, 1993).

Sensitive environments within 2 miles of the Ace facility include three types of mapped wetland areas. The first type consist of ponds and marshes with nonwoody emergent vegetation. There are approximately eight of these wetland areas. These wetlands mostly measure between 1 and 2 acres in size. The second type of wetlands is excavated intermittent riverine wetlands, which are located along tributaries to the Des Plaines River. The third type includes six flooded dolomite quarries up to 20 acres in size (USDI, undated). The nearest wetland is located approximately 1 mile north of the facility property and consists of a 1-acre marsh with nonwoody emergent vegetation.

#### 3.0 SOLID WASTE MANAGEMENT UNITS

This section describes the two SWMUs identified during the PA/VSI. The following information is presented for each SWMU: description of the unit, dates of operation, wastes managed, release controls, history of documented releases, and PRC's observations. Figure 2 shows the SWMU locations.

SWMU 1	Waste Treatment Unit
SWIND	Waste Heatment Only

Date of Startup:

Unit Description: This unit was used to treat a spent caustic scrubber solution from

Northern Petrochemical Company. This unit consisted of seven processing tanks; two tanks had a capacity of 11,000 gallons and five tanks had a capacity of 5,000 gallons. The unit also had two

filters. After the initial neutralization of the spent scrubber

solution, conditioning polymers were added to flocculate the solids. Liquids and solids were then separated, and solids were processed through one of the two filters. This unit was removed in 1983.

Date of Closure: This unit has been inactive since 1981, but no documentation

This unit began operation in 1979.

indicates that closure was completed.

Wastes Managed: This unit managed spent caustic scrubber solution (waste code

unknown), spent pickle liquor (K062), etchant (D002),

nonhazardous filtrate, nonhazardous filter cake, oily substance (D001), and nonhazardous treated effluent. All waste was received

(2001), and normalizations treated errident. An waste was received

from off site.

Release Controls: This unit was located indoors on a concrete base. The facility

building has a Collection Drain (AOC 1). However, it is unknown if the drain is connected to the sewerage system or if it is self-

contained. No other release controls are mentioned for this unit in

available documents.

History of

Documented Releases:

No releases from this unit have been documented.

Observations:

During the VSI, the waste treatment unit was not present at the facility. The SWMU's former location is now used as a garage. The concrete floor appeared to be in good condition, and no cracks were observed. However, the floor was dirty and several areas were stained with an oily substance. Mr. Egly stated that the stains were made by trucks stored in the building (see Photographs No. 1, 2, and 3).

SWMU 2

Waste Storage Areas

Unit Description:

Outdoor tanks comprising this unit were used for hazardous waste storage until the waste was transferred indoors to the Waste Treatment Unit (SWMU 1) for treatment. Construction materials and volumes of the tanks comprising this unit are unknown. The tanks were located in the eastern portion of the facility property. This area is currently used to store scrap metal.

Date of Startup:

This unit began operation in 1979.

Date of Closure:

This unit has been inactive since 1981, but no documentation indicates that closure was completed.

Wastes Managed:

This unit managed spent caustic scrubber solution (waste code unknown), spent pickle liquor (K062), spent etchant (D002), and oily substance (D001).

Release Controls:

A clay berm that varied in height from 1.5 to 3 feet was constructed on the north side of the property. No other release controls are mentioned in available documents.

History of Documented Releases:

On March 29, 1981, between 150 and 200 gallons of spent caustic scrubber solution (D002) spilled onto the ground from an overfilled tank during transfer. The solution was cleaned up by a chemical absorbent compound. The compound was disposed of in a dumpster.

Observations:

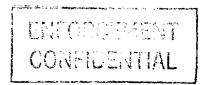
The storage tanks are no longer present at the facility. The area is currently used to store scrap metal. During the VSI, the ground around the SWMU's former location was covered with snow. PRC noted no evidence of release (see Photographs No. 5, 6, and 7).

#### 4.0 AREAS OF CONCERN

PRC identified one AOC during the PA/VSI. This AOC is discussed below; its location is shown in Figure 2.

#### AOC 1 Collection Drain

A rectangular collection drain was observed indoors during the VSI on the west side of the facility building. The drain measures approximately 1.5 by 15 feet. Its depth is unknown, but it appeared to be about 2 feet deep. The drain's walls appear to be constructed of concrete, but the base of the drain was not visible during the VSI. The visible walls were dark and muddy (see Photograph No. 4). Mr. Egly stated that he did not know the depth of the drain or the construction material of its base, or if the drain is self-contained or connected to the sewerage system. According to an IEPA document, the drain contents were formerly pumped back to the treatment tanks in the Waste Treatment Unit (SWMU 1). The drain does not appear to be connected to the sewerage system. The building is not currently connected to a municipal water supply or to the sewer.



#### 5.0 CONCLUSIONS AND RECOMMENDATIONS

The PA/VSI identified two SWMUs and one AOC at the Ace facility. Background information on the facility's location; operations; waste generating processes and waste management practices; history of documented releases; regulatory history; environmental setting; and receptors is presented in Section 2.0. SWMU-specific information, such as the unit's description, dates of operation, wastes managed, release controls, history of documented releases, and observed condition, is presented in Section 3.0. The AOC is discussed in Section 4.0. Following are PRC's conclusions and recommendations for each SWMU and AOC. Table 3, at the end of this section, summarizes the SWMUs and AOC at the facility and recommended further actions.

SWMU 1

Waste Treatment Unit

Conclusions:

The Waste Treatment Unit was not present at the facility during the VSI. The area is now used as a garage. The SWMU was located indoors on a concrete base. During the VSI, the base was dirty, but no cracks were observed.

The potential for release to ground water, surface water, air, and on-site soils is low because the unit is no longer active. No documented releases are associated with this unit.

Recommendations:

PRC recommends no further action for this SWMU at this time.

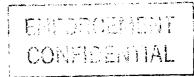
SWMU 2

Waste Storage Areas

Conclusions:

Hazardous waste was stored in nine tanks comprising the SWMU from 1979 to 1981. These tanks are no longer at the facility. The area is now used to store scrap metal.

The potential for release to ground water, surface water, air, and on-site soils is low because the area is no longer used for hazardous waste storage.



Recommendations:

PRC recommends that Ace submit all documentation regarding soil samples taken in this area in June 1983 to determine if contamination exists.

AOC 1

Collection Drain

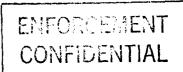
Conclusions:

This unit is located indoors. Little information is available regarding this unit. It is unknown if this unit is self-contained or if it is connected to the municipal sewerage system. Also, it is unknown what construction material was used for the base of the unit.

The potential for release to ground water, surface water, air, and on-site soils is low because the area is used as a garage. According to an IEPA document, the drain contents were formerly pumped back to the treatment tanks in the Waste Treatment Unit (SWMU 1). The drain does not appear to be connected to the sewerage system.

Recommendations:

PRC recommends that Ace submit documentation to indicate the construction materials of base and if the drain is self-contained or connected to the sewerage system. These actions will help determine if a release from this AOC ever occurred to on-site soil.



## TABLE 3 SWMU AND AOC SUMMARY

SWMU	Dates of Operation	Evidence of Release	Recommended Further Action		
Waste Treatment Unit	1979 to 1981	None	No further action		
2. Waste Storage Areas	1979 to 1981	150- to 200-gallon spill of spent caustic scrubber solution in 1981	Submit documentation regarding soil samples taken in 1983		
AOC	Dates of Operation	Evidence of Release	Recommended Further Action		
1. Collection Drain	1979 to 1981	None	Submit documentation regarding construction materials and containment of unit		

#### REFERENCES

- City of Joliet, 1981a. Correspondence from City of Joliet Utilities Department to IEPA Regarding Process Alliance Partnership (PAP), January 21.
- City of Joliet, 1981b. Correspondence from City of Joliet to Illinois Environmental Protection Agency (IEPA) Regarding Spill at PAP Facility, February 18.
- Federal Emergency Management Agency (FEMA), 1985. National Flood Insurance Program, Joliet, Will County, Illinois.
- Hughes, Kraatz, and Landon, 1966. Bedrock Aquifers of Northeastern Illinois, Illinois State Geological Survey, Circular 406.
- IEPA, 1980, Memorandum Regarding PAP Facility Permit Application Considerations, December 15.
- IEPA, 1981a. Memorandum Regarding Permit Application Considerations, February 3.
- IEPA, 1981b. Memorandum Regarding PAP Facility Spill on March 29, 1981, April 2.
- IEPA, 1981c. PAP Facility Permit Denial, February 23.
- IEPA, 1981d. PAP Facility Permit Inspection, February 24.
- IEPA, 1981e. PAP Facility Permit Extension, February 28.
- IEPA, 1981f. PAP Facility Permit Inspection, May 1.
- IEPA, 1981g. PAP Facility Permit Inspection, August 5.
- IEPA, 1981h. PAP Facility Permit Denial, August 11.
- Joliet Water and Sewer Department, 1993. Record of Telephone Conversation between Bob Stanbury, Superintendent, and Lorraine Morris, PRC Environmental Management, Inc. (PRC), January 28.
- Lineback, J., 1979. Quaternary Deposits of Illinois. Map, 1:500,000.
- National Oceanographic and Atmospheric Agency (NOAA), 1979. Climatic Atlas of the U.S., Asheville, NC, 1979.
- NOAA, 1990. Local Climatological Data, Chicago, Illinois.
- PAP, 1980. RCRA Part A Permit Application, November 14.
- PAP, 1981a. Correspondence from PAP to IEPA, February 28.
- Schicht, R., and others, 1976. Water Resources Availability, Quality, and Cost in Northeastern Illinois, Illinois State Water Survey Report of Investigation 83.

- State of Illinois, 1991. Official Highway Map of Illinois.
- University of Illinois Agricultural Extension Service (UIAES), 1962. Will County Soils, Soil Report 80, December.
- U.S. Army Corps of Engineers (COE), 1981. Correspondence to IEPA Regarding Odor Problems at PAP, February 13.
- U.S. Department of the Interior (USDI), Undated. National Wetlands Inventory Maps, Joliet, Illinois, Quadrangle, Based on Aerial Photographs taken April 1983.
- U.S. Environmental Protection Agency (EPA), 1984. Site Screening Inspection Conducted by Ecology and Environment, Inc., December 11.
- U.S. Geological Survey (USGS), 1962. Topographic Map, 7.5-Minute Series, Joliet, Illinois, Quadrangle, Photorevised 1973.
- William, H.B., 1971. Summary of the Geology of the Chicago Area. Illinois State Geological Survey, Circular 460.

## ATTACHMENT A EPA PRELIMINARY ASSESSMENT FORM 2070-12



EPA FORM 2070-12(17-81)

# POTENTIAL HAZARDOUS WASTE SITE PRELIMINARY ASSESSMENT PART 1 - SITE INFORMATION AND ASSESSMENT

I. IDENTIFICATION					
01 STATE	02 SITE NUMBER				
מח	006 665 752				

						1	
H. SITE NAME AND LOCATION	<del></del>	<del> </del>					
01 SITE NAME (Legal, common, or descriptive name of site) Ace Iron and Metals, Inc. (Ace)			02 STREET, ROUTE NO. OR SPECIFIC LOCATION IDENTIFIER 608 Railroad Street				
03 CITY Joliet		04	STATE	05 ZIP CODE	06 COUNTY	07 COUNTY CODE 197	08 CONG DIST
7	ONGITUDE 8° 05' 32.0"		n.	60436	Will	197	1/
10 DIFECTIONS TO SITE (Starting from nearest public road)  Take Interstate 80 to Illinois Highway 7; proceed south on Highway 7 to Illinois Highway 6; proceed east on Highway 6 for about 2 miles to the facility.							
III. RESPONSIBLE PARTIES		1 00		T /0			
01 OWNER (# known) Ace		"		T <i>(Businees, maili</i> nird Avenue	ng rewoentier)		
03 СПУ Joliet		04	STATE IL	05 ZIP CODE 60433	06 TELEPHONE NUMBER (815) 723-2612		
07 OPERATOR (If known and different from owner)		Ot	8 STREE	T (Business, maili	ng, residential)		
оэ стү		10	STATE	11 ZIP CODE	12 TELEPHONE	E NUMBER	
13 TYPE OF OWNERSHIP (Check one)  8( A. PRIVATE   B. FEDERAL:							
MONTH DAY YEAR  IV. CHARACTERIZATION OF POTENTIAL HAZAI	RD			<del></del>		MONTH DAY	· CAN
O1 ON SITE INSPECTION  BY (Check all that apply)  A. EPA  BL. B. EPA CONTRACTOR  C. STATE  C. D. OTHER CONTRACTOR  BL. CONTRACTOR  C. STATE  C. D. OTHER CONTRACTOR  C. SPACIFY  CONTRACTOR NAME(SI: PRC Environmental Management, Inc. (PRC)							
02 SITE STATUS (Check one)		03 YEAR					<del></del>
a. Active B.B. Mactive a C.Unkn	OWN		1983   Present INKNOWN BEGINNING YEAR ENDING YEAR				
O4 DESCRIPTION OF SUBSTANCES POSSIBLY PRESENT. KNOWN, OR ALLEGED  Current facility activities do not require hazardous waste management or generation. Process Alliance Partnership (PAP) operated the facility in the past as a waste treatment facility managing spent caustic scrubber solution (waste code(s) unknown, if applicable), spent pickle liquor (K062), etchant (D002), and an oily substance (D001).							
OS DESCRIPTION OF POTENTIAL HAZARD TO ENVIRONMENT AND/OR POPULATION  Low because the facility is inactive; past activities had medium potential for air and on-site soils releases							
V. PRIORITY ASSESSMENT							
01 PRIORITY FOR INSPECTION (Check one. If high or medium is checked, complete Part 2 - Waste Information and Part 3 - Description of Hazardous Conditions and Incidents.)							
A. HIGH II B. MEDIUM II C. LOW II D. NONE (Inspection required promptly) (Inspection required) (Inspect on time-evailable basis) (No further action needed; complete current disposition form)							
VI. INFORMATION AVAILABLE FROM							
01 CONTACT Kevin Pierard	02 OF (Agency U.S. EPA	-	nnization)			03 TELEPHONE NUMBER (312) 886-4448	
04 PERSON RESPONSIBLE FOR ASSESSMENT LOTTRING MOTTIS	05 AGENCY		06 OF	GANIZATION PRC		ONE NUMBER ) 856-8700	08 DATE  2/11/93  MONTH DAY YEAR

## ATTACHMENT B VISUAL SITE INSPECTION SUMMARY AND PHOTOGRAPHS

#### VISUAL SITE INSPECTION SUMMARY

Ace Iron and Metals, Inc. (Ace)
(Formerly Process Alliance Partnership)
608 Railroad Street
Joliet, Illinois 60436
ILD 006 665 752

Date: January 19, 1993

Primary Facility Representative: David Egly, Ace Facility Owner

Representative Telephone No.: 815/723-2612

Inspection Team: Lorraine Morris, PRC Environmental Management, Inc.

(PRC)

John Maher, PRC

Photographer: John Maher, PRC

Weather Conditions: Sunny; windy; about 30 °F

Summary of Activities: The visual site inspection (VSI) began at 10:20 a.m. with an

introductory meeting. The inspection team explained the purpose of the VSI and the agenda for the visit. Facility representatives then discussed the facility's past and current operations, solid wastes generated, and release history. Facility representatives provided the inspection team with

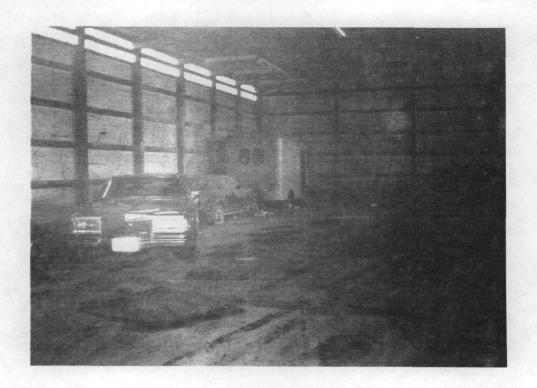
copies of requested documents.

The VSI tour began at 10:20 a.m. The former areas of the Waste Treatment Unit (SWMU I) and Waste Storage Areas (SWMU 2), and the Collection Drain (AOC I) were observed. Soil condition could not be observed because

snow covered the ground.

The tour concluded at 10:55 a.m., after which the inspection team held an exit meeting with facility representatives. The VSI was completed and the inspection team left the facility

at 10:55 a.m.



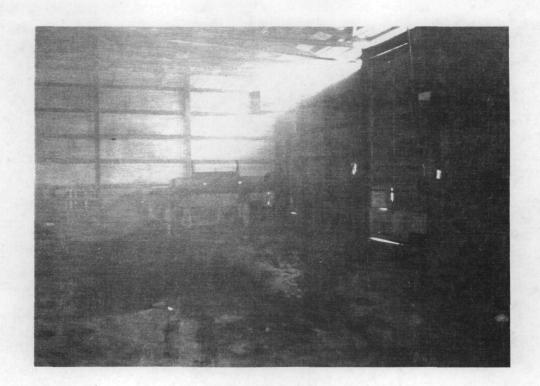
Photograph No. 1 Location: SWMU 1
Orientation: Northeast Date: 1/19/93

Description: Northeast corner of facility building; area of former Waste Treatment Unit



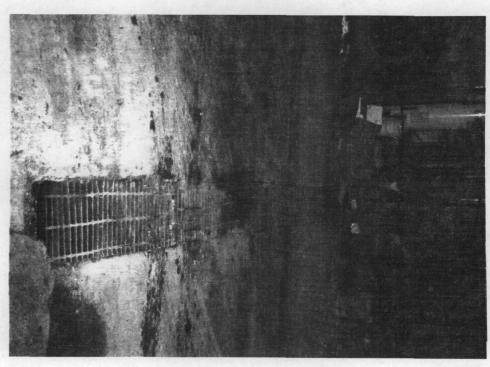
Photograph No. 2 Location: SWMU 1
Orientation: North Date: 1/19/93

Description: North wall of facility building; area of former Waste Treatment Unit



Photograph No. 3
Orientation: East
Location: SWMU 1
Date: 1/19/93

Description: Southeast corner of building; area of former Waste Treatment Unit



Photograph No. 4 Orientation: South

Description: Collection Drain

Location: AOC 1 Date: 1/19/93



Photograph No. 5 Orientation: Northwest Location: SWMU 2

Date: 1/19/93

Description: Outdoors and east of facility building; area of former Waste Storage Areas;

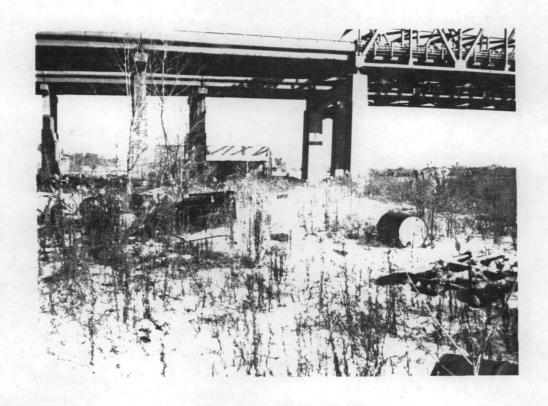
currently used for scrap metal storage



Photograph No. 6 Orientation: North Location: SWMU 2 Date: 1/19/93

Description: Outdoors and east of facility building; area of former Waste Storage Areas;

currently used for scrap metal storage



Photograph No. 7 Orientation: North

Date: 1/19/93 Description: Outdoors and east of facility building; area of former Waste Storage Areas; currently used for scrap metal storage

Location: SWMU 2

# ATTACHMENT C VISUAL SITE INSPECTION FIELD NOTES

Ace Iron & Markal 101 10:20AM - 10.55AM Cars in building Dirty floor (concrete) in good condition
Ina cracks), but
is dinty. ~ 1883 purchased maperty Swin. floor Adjacant propert also owned

103) preparty dirensions 264 x 66 Water during rain drain from street toward the french. Pryady is in a trust.
Truster: 1st National Bank Never have to pump out do and some large Work en tress a building. Or drages not done hore Moor has minor oil spots, floor agrees to been toward trench. Building is steet siles on atside floor is dis wet in goods. Form in Fulation on Mide Outside All egasjonant ramoved prior to their proporty owners purchase Evap wetal and metal drim accurated sha 1983. Vont Knew what mean, above grown Scrap notal included motal piping is for wall turning pile Swoning proceeds Asjacent property to north is also owned by Aca; containes scrap metal & concrete.

Army COE office with occupant (trok) storage. East Dos Planes River Rf. 6 then R.R. Tracks then vacant land. Mr. Egly said borings were dilled on east side of presenty. Mr. Egy stated he will copy report Borrys by Techne Laboratories

# ATTACHMENT D SOIL SAMPLE COVER LETTER

## TENCO LABORATORIES

A DIVISION OF THX. Inc. 5220 EAST AVENUE COUNTRYSIDE, ILLINOIS 60525 PHONE: 312/482-7200

October 13, 1983

Mr. Thomas C. Nolan
McSteen, Phelan & Egan, P.C.
Attorneys At Law
Suite 501
Emco Building
57 W. Jefferson Street
Joliet, Il. 60431

RE: Property located at 608 Railroad Street, Joliet, Illinois; owned by Mr. Robert Barker as leased to Process Alliance Partnership.

Enclosed are reports detailing our findings upon analyzing soil borings as taken from the property referenced above on 6/23/83. Also included is a description of the procedures used to sample, in an effort to determine if any materials used by the lessee of the property remained, so as to be a health hazard.

Upon evaluating the data obtained, we find that the property is not hazardous to human beings by reason of materials used by the lessee.

If there are any questions regarding this report, please feel free to contact me at any time.

Sincerely

Carl L. Andrews

Laboratory Director

CLA: js

encl

